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Texas Department of Transportation

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

FCC Docket 92-235

Federal Communications Commission
1919 M Street NW Room 222
Washington, D.C. 20554

May 15 1993
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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FCC - MAIL ROOM

Dear Sirs:

The Texas Department of Transportation (TxDOT) maintains and operates a very large highway system. These highways are used daily by emergency services.

We daily dispatch personnel and equipment in response to traffic incidents, hazardous material spills and other emergencies. In cases of declared disasters the "State of Texas Emergency Management Plan" assigns TxDOT specific Disaster Response and Recovery Responsibilities including emergency communications. Radio communication systems are of critical necessity for deploying our resources and conducting our business.

STATE DOT EMERGENCY RESPONSIBILITIES -

COMMENT - State transportation agencies are among the primary responders to major local and regional emergency and disaster events. The current Title 47 CFR Part 90, and former Part 89, recognize this fact and allocate the required eligibility and spectrum resources. The eligibility statement in the Federal Communication Commission docket 92-235 (88.13) appears to overlook this essential emergency role of highway agencies.

RECOMMENDATION - We recommend that the eligibility statement under Public Safety Radio Service (88.13) be rewritten to include Department of Transportation construction, maintenance and emergency operations, and to allocate spectrum resources accordingly. The reference for this request is the current Highway Maintenance Radio Service eligibility statement [90.23(a)].

TECHNOLOGY -

COMMENT - The technological issues have been addressed by both the Association of Public Communication Officers (APCO) and the American Association of State Highway and Transportation Officials (AASHTO). They have addressed the shortcomings of the presently used Frequency Modulation (FM) technology to meet the ultimate requirements of the proposed Part 88, the lack of backward compatibility and the financial and operational hardships this proposed docket would create for state and local transportation authorities (and ultimately their public clients).

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RECOMMENDATIONS - We generally concur with the technological assessments of the AASHTO report and much of the preliminary APCO report. We agree that existing systems should be protected for use in the service in which they are being operated or the service for which they are designated, and that the present system of coordination by participating services should be preserved. Provisions should be available for additional repeater pairs and a standard digital modulation technique for both voice and data.

We do not concur with the proposed comment by APCO concerning the National Regional 800 Mhz Public Safety Planning process being used as a possible model for administering public safety channels in the future.

SPECTRUM USE AND PROPOSED IMPLEMENTATION SCHEDULE -

COMMENT - Existing receiving equipment is not capable of reaching the spectrum efficiency goals of Phase One without significant modification or replacement. At best, signal to noise performance will be degraded, range will be decreased and inter-modulation distortion will increase. Present FM technology is not capable of operating on the proposed future 5 KHz band spacing.

RECOMMENDATIONS - To alleviate the economic issue of two equipment replacements within ten years and to add development time for Phase 2 solutions, TxDOT recommends that the very narrow bandwidth (VNB) goals be the same (6.25 MHz) for all bands, and that the implementation schedule be extended as follows:

- A. Provide immediate authorization for the use of spectrum efficient technology without mandating immediate implementation. This will allow use within current frequency allotments and promote field testing of new technologies.
- B. Allow a period of 5 years after the adoption of FCC Docket 92-235 (adoption of Part 88) before requiring that all licensees employ Phase 1 spectrum efficient technology. This will allow time for evaluation, testing, planning and securing funds. It will also permit experimentation utilizing VNB technology.

Reserve all new channels generated from existing Public Safety channels for Public Safety users. This could reduce inter-service post licensing interference negotiation.

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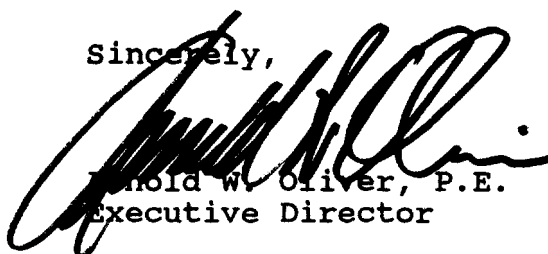
- C. During this 5 year period, encourage users and manufacturers to develop standards and technologies for Phase 2 very narrow band equipment and to thoroughly field test them. All alternate technologies employed would be considered co-primary users of the spectrum and should have backward compatibility to ease the transition.
- D. After the new technology equipment is fully developed and tested by multiple vendors, issue a new FCC Docket which will determine the VNB spectrum efficient technology standards and establish an implementation period before non-complying licenses would become invalid and could not be renewed.

We would favor granting limited time extensions by request to public safety agencies on a secondary user basis in non-metropolitan areas. These extension requests should require continued non-interference and propose a firm date for changeover.

This department encourages and supports actions to promote efficient use of our limited spectrum resources. We encourage the Commission to proceed with this important effort. Timely consideration and phased implementation will allow an organized migration to the new technologies and will serve the needs of existing and future users of the radio spectrum without undue financial hardship to taxpayers.

We consider the above items crucial to the integrity of the radio communications portion of our TxDOT Strategic Plan. Thank you for consideration of these proposals.

Sincerely,



Harold W. Oliver, P.E.
Executive Director

cc: Francis Francois,
Executive Director, AASHTO
Thomas A. Griebel,
Division of Planning and Policy